Reviewer's report

Title: Does Colon Cancer Ever Metastasize to Bone First? A Temporal Analysis of Colorectal Cancer Progression.

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Reviewer: J E Tepper

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This is an inherently flawed analysis. Using a database of patients who had PET scans produces an enormous bias in the results, so that the conclusions are probably not justified. If patients are referred for a PET scan there was probably a reason. It is not generally accepted practice to do routine screening PET scans in followup for a colon or rectal cancer. Thus, for example, if there were clear evidence of bone disease from clinical and standard X-ray criteria there would likely not have been a reason to obtain a PET scan. Valid information on the incidence of specific types of metastatic disease simply cannot be obtained with this type of database and analysis.

The data on therapy (and some other issues) is very unclear. Did most of these patients receive adjuvant therapy or was the therapy listed for metastatic disease? When time to development of metastatic disease (and similar) are listed, is that from the initial diagnosis, time of therapy initiation, time of PET scan or when? The standard would be from time of diagnosis, but that is not stated and the time to liver metastases seems very short compared to other data.

Much of the information presented contradicts other information in the literature. There is good evidence that surgical resection of isolated lung mets produces results as good as resection of isolated liver mets, and that this event is relatively common.

It really was not very clear what the authors were trying to determine. The stated purpose cannot be learned from this analysis.

No information is specifically given on followup. The implication is that they had 100% followup on all patients, but this seems extraordinarily unlikely.

The English is poor, making it seem like the authors never read the paper prior to submission.

Level of interest: An article of limited interest

Quality of written English: Needs some language corrections before being published

Statistical review: No, the manuscript does not need to be seen by a
statistician.

Declaration of competing interests:

I declare that I have no competing interests.